

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: Claim 1 recites the limitation "said pressure member" in line 7. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.
2. Claims 7-9 are objected to because of the following informalities: In claims 7-9 "liquified" should be spelled "liquefied". Appropriate correction is required.
3. Claims 8 and 9 are objected to because of the following informalities: Claims 8 and 9 depend from claim 6. However, since the limitation "said liquified gas" has not previously been required in claim 6 or prior claims. It has been assumed for the purpose of examination that claims 8 and 9 were intended to depend from claim 7. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 5,234,459) in view of Touhey et al. (US 6,450,906).

Regarding claims 1 and 2, Lee discloses a self-regulating tourniquet which includes: a pressure source (32); a pressure applicator apparatus (10) associated with the pressure source and operative to apply pressure therefrom to a subject limb. Lee discloses inflating said pressure applicator apparatus to apply a predetermined maximum pressure and maintaining said pressure, however Lee fails to disclose a pressure regulator associated with said pressure source and a pressure member, operative to restrict the pressure transferred from said pressure source to the limb to a designated maximum pressure applied to the subject limb. Touhey et al. disclose a self-regulating adjustable pressure relief valve (100) for preventing over-inflation of a chamber (col. 3, ln. 47 - col. 4., ln. 14). Therefore, it would have been obvious to one of ordinary skill in the art to provide an adjustable, self-regulating valve in the device of Lee to

prevent over-inflation of the pressure member and to prevent too much pressure being applied to the limb.

Regarding claim 3, Lee in view of Touhey et al. disclose the pressure regulator includes an apparatus for adjusting the maximum pressure applied to the subject limb (col. 4, ln. 8-14).

Regarding claims 4 and 5, Lee discloses the pressure applicator apparatus includes an inflatable pressure member (16) for directly applying pressure to a selected area on the subject limb; a contra member (12) adapted to at least partially circumvent the subject limb, and operative to resistively cooperate with said pressure member in applying pressure to the subject; and said pressure source is a portable fluid pressure source (col. 6, ln. 35-38).

Regarding claim 6, Lee disclose said pressure source is a manually operable source (32) by which a tension force may be applied to said contra member, and said pressure regulator includes an apparatus for locking (18a, 20a) said contra member when the pressure applied to the subject reaches the maximum pressure.

5. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 5,234,459) in view of Amisar et al. (WO 02/26102).

Regarding claim 7, Lee discloses a tourniquet (10) which includes a pressure source (32), pressure applicator apparatus (16) associated with said pressure source and operative to apply pressure therefrom to a subject limb. Lee discloses the tourniquet inflated to a predetermined pressure of about 250 mmHg and maintaining said pressure (col. 5, ln. 37-45), but Lee fails to the means of pressure regulation. Amisar et al. disclose a pressure source (24) of liquefied gas, a pressure applicator apparatus (42) associated with said pressure source, liquefied gas acting as a pressure regulator (pages 5-6), associated with said pressure source and said pressure member, operative to regulate the pressure transferred to the limb to a maximum pressure of the steady-state of the liquid/gas phases. Amisar et al. disclose liquefied

gas is a source of constant pressure and is advantageous because the large ratio between the liquid and gaseous states allows a large amount of gas to be stored in a compact apparatus (page 5). It would have been obvious to one of ordinary skill in the art to substitute the pressure source of Lee with the pressure source of Amisar et al. to provide a compact pressure source and to provide regulator for maintaining constant pressure.

Regarding claim 8, Lee in view of Amisar et al. disclose the liquefied gas is selected to produce a steady state pressure of a predetermined pressure applied to the subject limb at a given working temperature (page 6).

Regarding claim 9, Lee in view of Amisar et al. disclose the temperature of said liquefied gas is controlled by the body heat of the subject to produce a more steady-state pressure (page 6).

Regarding claim 10, Lee discloses the pressure source (32) and the pressure applicator (16) are separate modules adapted to be engaged by connecting means (27) and thereby establish gas passage from the pressure source to said applicator (col. 5, ln. 37-38).

Regarding claim 11, Lee disclose a plurality of pressure applicators are embedded in wearable articles so as to at least partially circumvent limbs of a subject and operative to apply pressure to the subject limb when engaged with a pressure source (col. 6, ln. 33-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER L. HORNBERGER whose telephone number is (571)270-3642. The examiner can normally be reached on Monday through Friday from 8am-5pm, Eastern time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on (571)272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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jlh
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/Todd E Manahan/
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